

SEQUENCE LISTING

<110> LU, YI
LI, JING

<120> NUCLEIC ACID ENZYME BIOSENSORS FOR IONS

<130> 10322/6

<140> Divisional of 09/605,558

<160> 84

<170> PatentIn Ver. 2.1

<210> 1

<211> 33

<212> DNA

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<223> Description of Artificial Sequence: Trans-cleaving
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<400> 1

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33

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<223> Description of Artificial Sequence: Synthetic chimeric
substrate

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<223> Description of Combined DNA/RNA Molecule: Synthetic chimeric
substrate

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actcactata ggaagagatg

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<223> Description of Artificial Sequence: Primer

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gtgccaagct taccg

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 <223> Description of Artificial Sequence: Primer

 <400> 4
 ctgcagaatt ctaatacgac tcactatagg aagagatggc gac 43

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 <212> DNA
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 <223> Description of Artificial Sequence: Primer

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 <223> Description of Combined DNA/RNA Molecule: Primer

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 <222> (20)..(59)
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 <223> Description of Artificial Sequence: Variant of
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<210> 8

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: Zn-DNA

<220>

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<222> (2)..(4)

<223> variable base complementary to positions 8-10

<220>

<221> modified_base

<222> (8)..(10)

<223> variable base complementary to positions 2-4

<400> 8

tnnnagcnnn tcgaaatagt

20

<210> 9

<211> 15

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Zn-DNA

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<221> modified_base

<222> (2)..(4)

<223> variable base complementary to positions 8-10

<220>

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<222> (8)..(10)

<223> variable base complementary to positions 2-4

<400> 9

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15

<210> 10

<211> 15

<212> DNA

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<223> Description of Artificial Sequence: Class II
Co-DNA

<400> 10

acccaagaag ggggtg 15

<210> 11
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<210> 12
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substrate

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substrate

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agccatagtt ctaccagcgg ttcgaaatag tgaagtgttc gtgactatc 49

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<210> 17
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<400> 17
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<400> 18
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<212> DNA

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<211> 50

<212> DNA

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<223> Description of Artificial Sequence: Zn-DNA

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<211> 50

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<223> Description of Artificial Sequence: Zn-DNA

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<211> 50

<212> DNA

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<223> Description of Artificial Sequence: Zn-DNA

<400> 23

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<211> 45

<212> DNA

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<211> 45

<212> DNA

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<210> 31

<211> 54

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Co-DNA

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<223> Description of Artificial Sequence: Co-DNA

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<212> DNA

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<223> Description of Artificial Sequence: Co-DNA

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<210> 34

<211> 50

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Co-DNA

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<210> 35

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Co-DNA

<400> 35

atctcaggtg ttggctgctc tcgcggtggc gagaggtagg gtcattgtgac 50

<210> 36

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Co-DNA

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<210> 37

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Co-DNA

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<210> 38

<211> 50

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Co-DNA

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 <210> 39
 <211> 50
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Co-DNA

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 <210> 40
 <211> 50
 <212> DNA
 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: Co-DNA

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 <210> 41
 <211> 54
 <212> DNA
 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: Co-DNA

 <400> 41
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 <210> 42
 <211> 14
 <212> DNA
 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: Co-DNA

 <400> 42
 ggtaagcttg gcac 14

<210> 43
<211> 40
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<223> Description of Artificial Sequence: Zn-DNA

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ttttgtcagc gactcgaaat agtgtgttga agcagctcta 40

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<211> 40
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<210> 45
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zn-DNA

<400> 45
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<210> 46
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zn-DNA

<400> 46
ttttgtcagc gactcgaaat agtgtgttac agttgcccta 40

<210> 47
<211> 40
<212> DNA
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<223> Description of Artificial Sequence: Zn-DNA

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<210> 48
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zn-DNA

<400> 48
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<210> 49
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zn-DNA

<400> 49
ttttgtcagc gactcgaaat agtgagtaag aggagctatc 40

<210> 50
<211> 40
<212> DNA
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<220>
<223> Description of Artificial Sequence: Zn-DNA

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ttttgtcagc gactcgaaat agtgagggga aacagctctc 40

<210> 51
<211> 39
<212> DNA
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<220>
<223> Description of Artificial Sequence: Zn-DNA

<400> 51
ttttgtcagc gactcgaaat agttagttga acacctctc 39

<210> 52
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Zn-DNA

 <400> 52
 ttttgtcagc gactcgaaat attgagttga agcagatctc 40

 <210> 53
 <211> 40
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 <220>
 <223> Description of Artificial Sequence: Zn-DNA

 <400> 53
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 <220>
 <223> Description of Artificial Sequence: Zn-DNA

 <400> 54
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 <212> DNA
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 <220>
 <223> Description of Artificial Sequence: Zn-DNA

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 <400> 56
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<211> 40
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 <223> Description of Artificial Sequence: Zn-DNA

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 <210> 58
 <211> 40
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 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: Zn-DNA

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 <210> 59
 <211> 38
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 <223> Description of Artificial Sequence: Zn-DNA

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 <210> 60
 <211> 39
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 <210> 61
 <211> 40
 <212> DNA
 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: Zn-DNA

 <400> 61
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<210> 62
 <211> 40
 <212> DNA
 <213> Artificial Sequence

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 <211> 40
 <212> DNA
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 <223> Description of Artificial Sequence: Zn-DNA

 <400> 63
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 <210> 64
 <211> 40
 <212> DNA
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 <223> Description of Artificial Sequence: Zn-DNA

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 <210> 65
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 <210> 66
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<400> 66
gtcagtcagg tactcgaaaa atagtgttca agccgctgtc 40

<210> 67
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<223> Description of Artificial Sequence: Zn-DNA

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<210> 68
<211> 40
<212> DNA
<213> Artificial Sequence

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<210> 69
<211> 40
<212> DNA
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<223> Description of Artificial Sequence: Zn-DNA

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tattgtcagt gaccctaaaat agtatgttga agcagctctg 40

<210> 70
<211> 39
<212> DNA
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<223> Description of Artificial Sequence: Zn-DNA

<400> 70
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<210> 71
<211> 15
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric substrate

<220>

<223> Description of Combined DNA/RNA Molecule: Synthetic chimeric substrate

<400> 71

tcactatagg aagag

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<210> 72

<211> 36

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic chimeric substrate

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<223> Description of Combined DNA/RNA Molecule: Synthetic chimeric substrate

<400> 72

ctcttcagcg atccggaacg gcacccatgt tagtga

36

<210> 73

<211> 19

<212> DNA

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<223> Description of Artificial Sequence: Synthetic chimeric substrate

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<223> Description of Combined DNA/RNA Molecule: Synthetic chimeric substrate

<400> 73

tcactataag aagagatgg

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<210> 74

<211> 37

<212> DNA

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<223> Description of Artificial Sequence: Synthetic chimeric substrate

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 <223> Description of Combined DNA/RNA Molecule: Synthetic chimeric
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<400> 74
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 <211> 17
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 substrate

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 <223> Description of Combined DNA/RNA Molecule: Synthetic chimeric
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<210> 76
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 <223> Description of Artificial Sequence: Synthetic chimeric
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 <223> Description of Combined DNA/RNA Molecule: Synthetic chimeric
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<400> 76
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<210> 77
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<220>
 <223> Description of Artificial Sequence: Synthetic chimeric
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<220>
 <223> Description of Combined DNA/RNA Molecule: Synthetic chimeric
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<400> 77
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<210> 78
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<220>
<223> Description of Artificial Sequence: Synthetic chimeric
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<220>
<223> Description of Combined DNA/RNA Molecule: Synthetic chimeric
substrate

<400> 78
cgcacctcc gagccggacg aagttactt 29

<210> 79
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<220>
<223> Description of Artificial Sequence: Synthetic chimeric
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<220>
<223> Description of Combined DNA/RNA Molecule: Synthetic chimeric
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<400> 79
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<210> 80
<211> 41
<212> DNA
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<220>
<223> Description of Artificial Sequence: Synthetic chimeric
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<220>
<223> Description of Combined DNA/RNA Molecule: Synthetic chimeric
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<400> 80
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<210> 81
<211> 20
<212> DNA
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